

# Use of aminosubstituted hydroxybenzophenones as photostable UV-filters in cosmetic and pharmaceutical preparations

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## Abstract of EP1046391

Amino-substituted hydroxybenzophenone derivatives (I) are used as photostable ultraviolet filters in cosmetic and pharmaceutical compositions for protecting human skin or hair against solar radiation. Amino-substituted hydroxybenzophenone derivatives of formula (I) are used as photostable ultraviolet (UV) filters in cosmetic and pharmaceutical composition for protecting human skin or hair against solar radiation. R<1>, R<2> = H, 1-20C alkyl, 2-20C alkenyl, 3-10C cycloalkyl or 3-10C cycloalkenyl, or NR<1>R<2> is a 5- or 6-membered ring; R<3>, R<4> = 1-20C alkyl, 2-20C alkenyl, 3-10C cycloalkyl, 3-10C cycloalkenyl, 1-12C alkoxy, 1-20C alkoxy carbonyl, 1-12C alkylamino, 1-12C dialkylamino, aryl or heteroaryl, optionally substituted, or CN, carboxylate, sulfonate or ammonium group X = H, COOR<5> or CONR<6>R<7>; R<5>-R<7> = H, 1-20C alkyl, 2-10C alkenyl, 3-10C cycloalkyl, 3-10C cycloalkenyl, (Y-O)Z or aryl; Y = (CH2)2, (CH2)3, (CH2)4 or CH(Me)CH2; Z = ethyl, n-propyl, n-butyl or isopropyl; m = 0-3; n = 0-4; o = 1-20. Independent claims are also included for: (1) cosmetic or pharmaceutical composition for protecting human epidermis or hair against UV light of wavelength 280-400 nm comprising a carrier and (I) and optionally known UV-B absorbers; and (2) amino-substituted hydroxybenzophenone derivatives of formula (Ic). R1a, R2a = H or 1-8C alkyl, or NR1aR2a is a 5- or 6-membered ring; X' = COOR5a or CONR6aR7a; R5a = 2-12C alkyl or 5-6C cycloalkyl; R6a, R7a = H, 1-12C alkyl or 5-6C cycloalkyl.

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